

1 CCCACGCGTC CGATATAATC AGCAGCGGCG CGGAGAAACC CGCAATCTCT GCGCCACAA AATACACCGA CGATGCCCGA TCTACTTTAA GGGCTGAAC
GGGTGGCAG GCGTATTAG TCGTGGCGCG GCCTCTTGGG GCGTTAGAGA CGCGGTGTT TATGTGGCT GTACGGGCT AGATGAAATT CCCGACTTTG

101 CCACGGGCCT GAGAGACTAT AAGAGCGTTC CCTACCGGCA TGAACAACG GGGACAGAAC GCGCCGGCGG CTTCGGGGGG CCGGAAAAGG CACGGCCCGC
GGTGGCCGGA CTCTCTGATA TTCTCGCAAG GGATGGCGGT ACCTTGTTGC CCCTGTCTTG CCGGGCCGGC GAAGCCCCCG GGCCTTTTCC GTGCCGGGTC

1 M etGluGlnAr gGlyGlnAsn AlaProAlaA laSerGlyAl aArgLysArg HisGlyProGly

201 GACCCAGGGA GCGCGGGGGA GCCAGGCCTG GGCTCCGGGT CCCCAAGACC CTTGTGCTCG TTGTGCGCGC GGTCTGCTG TTGGTCTCAG CTGAGTCTGC
CTGGGTCCCT CCGCGCCCCCT CGGTCCGGAC CCGAGGCCCA GGGTCTCTG GAACACGAGC AACAGCGCG CCAGCAGGAC AACAGAGTC GACTCAGACG

22 ProArgG1 uAlaArgGly AlaArgProG lyLeuArgVa lProLysThr LeuValLeuV alValAlaAl aValLeuLeu LeuValSerA laGluSerAla

301 TCTGATCACC CAACAAGACC TAGTCCCCA GCAGAGAGCG GCCCCACAAC AAAAGAGGTC CAGCCCCCTCA GAGGATTGT GTCCACCCTGG ACACCATATC
AGACTAGTGG GTTGTCTCTG ATCGAGGGGT CGTCTCTCG CCGGTCTCTG TTTTCTCCAG GTCCGGGAGT CTCCCTAACA CAGGTGGACC TGTGGTATAG

55 LeuIleThr GlnGlnAspL euAlaProG1 nGlnArgAla AlaProGlnG lnLysArgSe rSerProSer GluGlyLeuC ysProProG1 yHisHisIle

401 TCAGAAGACG GTAGAGATTG CATCTCTCTG CAATATGGAC AGGACTATAG CACTCACTGG AATGACCTCC TTTTCTGCTT GCGCTGCACC AGGTGTGATT
AGTCTTCTGC CATCTCTAAC GTAGAGGACG TTTATATACCTG TCCTGATATC GTGAGTGACC TTTACTGGAGG AAAAGACGAA CCGCAGCTGG TCCACACATA

88 SerGluAspG lyArgAspCy sIleSerCys LysTyrGlyG lnAspTyrSe rThrHisTrp AsnAspLeuL euPheCysLe uArgCysThr ArgCysAspSer

501 CAGGTGAAGT GGAGCTAAGT CCCTGCACCA CGACCAGGAA CACAGTGTGT CAGTGGGAG AAGCACCTT CCGGGAAGAA GATTCTCTG AGATGTGCCG
GTCCACTTCA CTTCCGATTCA GGGACGTGGT GCTGGTCTTT GTGTACACA GTACAGCTTC TTCCGTGGAA GGCCTTCTT CTAAGAGGAC TCTACACGGC

122 GlyGluVa lGluLeuSer ProCysThrT hrThrArgAs nThrValCys GlnCysGluG luGlyThrPh eArgGluGlu AspSerProG luMetCysArg

601 GAAGTCCCGC ACAGGTGTC CCAGAGGGAT GGTCAAGGTC GGTGATTGTA CACCTGGAG TGACATCGAA TGTCTCCACA AAGAATCAGG CATCATCAT
CTTCACGGCG TGTCCACAG GGTCTCCCTA CCAGTTCAG CCACCTAACAT GTGGGACCTC ACTGTAGCTT ACACAGGTGT TTTCTTAGTCC GTAGTAGTAT

155 LysCysArg ThrGlyCysP roArgGlyMe tValLysVal GlyAspCysT hrProTrpSe rAspIleGlu CysValHisL ysGluSerG1 yIleIleIle

701 GGAGTCACAG TTGCAGCCGT AGTCTTGATT GTGGCTGTGT TTGTTTGCAA GTCTTTACTG TGAAGAAAG TCCTTCTCTTA CCTGAAAGGC ATCTGCTCAG
CCTCAGTGTG AACGTGGCA TCAGAACTAA CACCGACACA CACCGACATA AACAAAGCTT CAGAAATGAC ACCTTCTTTC AGGAAGGAAT GGACTTTCCG TAGACGAGTC

188 GlyValThrV alAlaAlaVa lValIleIle ValAlaValP heValCysL ysSerLeuLeu TrpLysLysV alLeuProTy rLeuLysGly IleCysSerGly

FIG. 1A

801 GTGGTGGTGG GGACCCCTGAG CGTGTGGACA GAAGCTCACA ACGACCTGGG GCTGAGGACA ATGTCTCTCA TGAGATCGTG AGTATCTTGC AGCCACACCCA
 CACCACCACC CCTGGGACTC GCACACCTGT CTTCGAGTGT TGCTGGAGCC CGACTCCTGT TACAGGAGTT ACTCTAGCAC TCATAGAACG TCGGGTGGGT
 222 GlyGlyG1 yAspProGlu ArgValAspA rgSerSerG1 nArgProGly AlaGluAspA snValLeuAs nGluIleVal SerIleLeuG lnProThrGln
 901 GGTCCCTGAG CAGGAAATGG AAGTCCAGGA GCCAGCAGAG CCAACAGGTG TCAACATGTT GTCCCCCGGG GAGTCAGAGC ATCTGCTGGA ACCGGCAGAA
 CCAGGGACTC GTCCTTTTACC TTCAGGTCCT CGGTCTCTC GGTGTTCAC AGTTGTACAA CAGGGGGCCC CTCAGTCTCG TAGACGACCT TGGCCCGTCTT
 255 ValProGlu GlnGluMetG luValGlnG1 uProAlaGlu ProThrGlyV alAsnMetLe uSerProGly GluSerGluH isLeuLeuG1 uProAlaGlu
 1001 GCTGAAAGGT CTCAGAGGAG GAGGCTGCTG GTTCCAGCAA ATGAAGGTGA TCCCACCTGAG ACTCTGAGAC AGTCTTTCGA TGACTTTGCA GACTTGGTGC
 CGACTTTCCA GAGTCTCTC CTCGACGAC CAAGGTCCTT TACTTCCACT AGGCTGACTC TGAGACTCTG TCACGAAGCT ACTGAAACGT CTGAACCCAGC
 288 AlaGluArgS erGlnArgAr gArgLeuLeu ValProAlaA snGluGlyAs pProThrGlu ThrLeuArgG lnCysPheAs pAspPheAla AspLeuValPro
 1101 CCTTTGACTC CTGGGAGCCG CTCATGAGGA AGTTGGGCCT CATGGACAAT GAGATAAAGG TGGCTAAAGC TGAGGCAGCG GGCACACAGG ACACCTTGTA
 GGAAACTGAG GACCTCGGC GAGTACTCCT TCAACCCGGA GTACCTGTTA CTCTATTTCC ACCGATTTCC ACTCCGTCGC CCGGTCTCCC TGTGGAACAT
 322 PheAspSe rTrpGluPro LeuMetArgL ysLeuGlyLe uMetAspAsn GluIleLysV alAlaLysAl aGluAlaAla GlyHisArgA spThrLeuTyr
 1201 CACGATGCTG ATAAAGTGGG TCAACAAAAC CGGGCGAGAT GCCTCTGTCC ACACCCCTGT GGATGCCTTG GAGACGCTGG GAGAGAGACT TGCCAAGCAG
 GTGCTACGAC TATTTACACC AGTTGTGTTG GCCCGCTCTA CGGAGACAGG TGTGGGACGA CCTACGGAAC CTCTCTCTGA ACGGTTCTGC
 355 ThrMetLeu IleLysTrpV alAsnLysTh rGlyArgAsp AlaSerValH isThrLeuLe uAspAlaLeu GluThrLeuG lyGluArgLe uAlaLysGln
 1301 AAGATTGAGG ACCACTTGTT GAGCTCTGGA AAGTTCATGT ATCTAGAAGG TAATGCAGAC TCTGCCWTGT CCTAAGTGTG ATTCTCTTCA GGAAGTGAGA
 TTCTAACTCC TGGTGAACAA CTCGAGACCT TTCAAGTACA TAGATCTTCC ATTACGCTCTG AGACGGAACA GGATTTCACAC TAAGAGAAGT CCTTCACCTCT
 388 LysIleGluA spHisLeuLe uSerSerGly LysPheMetT yrLeuGluG1 yAsnAlaAsp SerAlaXaaS erOC*
 1401 CCTTCCCTGG TTTTACCTTTT TTCTGGAAAA AGCCCAACTG GACTCCAGTC ACTAGGAAAG TGCCACAATT GTCAATGAC CGGTACTGGA AGAACTCTC
 GGAAAGGACC AAATGGAAAA AAGACCTTTT TCGGGTTGAC CTGAGGTGAG TCATCTCTTC ACGGTGTAA CAGTGTACTG GCCATGACCT TCTTTGAGAG
 1501 CCATCCAACA TCACCCAGTG GATGGAACAT CCTGTAACCT TTCACTGCAC TTGGCATTAT TTTTATAAGC TGAATGTGAT AATAAGGACA CTATGGAAT
 GGFAGGTGT AGTGGGTGAC CTACCTTGTA GGACATTGAA AAGTGACGTG AACCGTAATA AAAATATTG ACTTACACTA TTATTCTCTGT GATACCTTTA

FIG. 1B

1601 GTCTGGATCA TTCCGTTTGT GCGTACTTGT AGATTGTTT TGGGATGCA TTGTTTTCAC AGCACTTTT TATCCTAATG TAAATGCTTT ATTATTTAT
CAGACCTAGT AAGGCAACA CGCATGAAC TCTAAACCAA ACCCTACAGT AACAAAAGTG TCGTGAATAA ATAGGATTAC ATTTACGAAA TAAATAAATA

1701 TTGGGTACA TTGTAAGATC CATCTACAA AAAAAAAAAA AAAAAAAAAA GCGCGCGCG ACTCTAGAGT CGACCTGAG AGCTTGGCC GCCATGGCC
AACCCGATG AACATCTAG GTAGATGTTT TTTTTTTT TTTTTTTC CCGCGCGCG TGAGATCTCA GCTGGACGTC TTCCAACCGG CGGTACCGG

FIG.-1C

1 MEQRGONAPAAAGARKRHGPGPREARGARGLRVPKTLVLVAAVLLVSAESALITQQD
61 LAPQRAAPQQRSSPSEGLCPPGHHISEDGRDCISCKYQDYSTHWNDDLFLCLRCTRCD
121 SGEVELSPCTTTRNTVCQCEGTFREEDSPCMCRKRTGCPGRMVKVGDCPTWSDIECVH
181 KESGIIIGVTAAAVLIVAVFVCKSLMKVLPYLKICSGGGGDPERVDRSSQRPGEAD
241 NVLNEIVSILQPTQVPEQEMEVEPAEPTGVNMLSPGESEHLLLEPAEAERSQRRLLVPA
301 NEGDPTELRQCFDDFADLVPFDSWEPIMRKLGLMDNEIKVAKAEAGHRDLYTMLIKW
361 VNKTGRDASVHTLLDALETGLERLAKQKIEDHLLSSGKFMYLEGNADSALS

FIG.-2A

Apo2	FADLVPFDSWEPIMRKLGLMDNEIKVAKAEAA--GHRDTL
DR4	FANIVPFDSWDQLMRQLDLTKNEIDVVRAGTA--GPGDAL
Apo3/DR3	VMDAVPARRWKKEFVRITLGLREAEIEAVEVEIGR--FRDQQ
TNFR1	VVENVPLRWKKEFVRITLGLSDHEIDRLQLNGR-CLREAQ
Fas/Apo1	IAGVMTLSQVKGFFVRKNGVNEAKIDDEIKNDNVQDTAEQKV

Apo2	YTMILIKWVNKTGRD-ASVHTLLDLETLGERLAKQKIED
DR4	YAMLKMWVNKTGRN-ASVHTLLDLETLGERLAKQKIED
Apo3/DR3	YEMLKRWRRQQP--AGLGAVALERMGLDGCVEEDLRS
TNFR1	YSMLATWRRRTTPRREATLELGLGRVLRDMDLLGLCLDEE
Fas/Apo1	-QLLRNWHQLHGKKEAY-DTLLIKDLLKKANLCTLAEKIQ

FIG.-2B

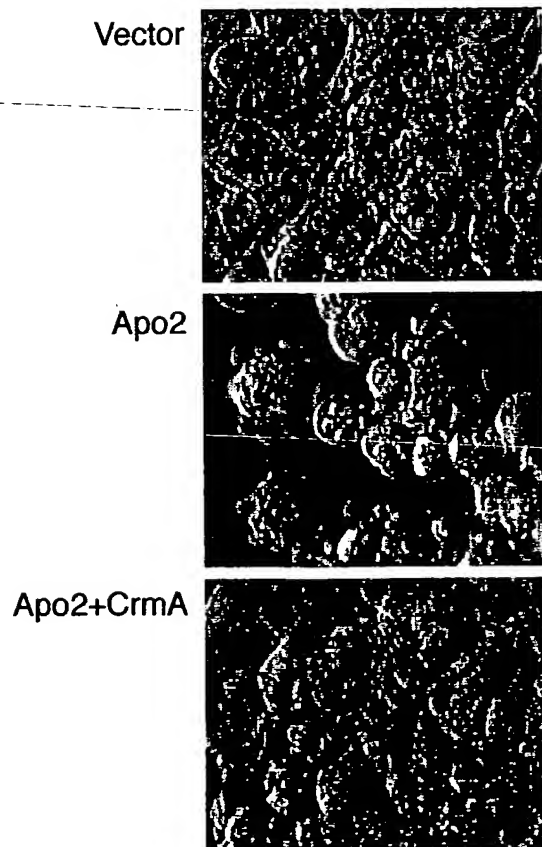
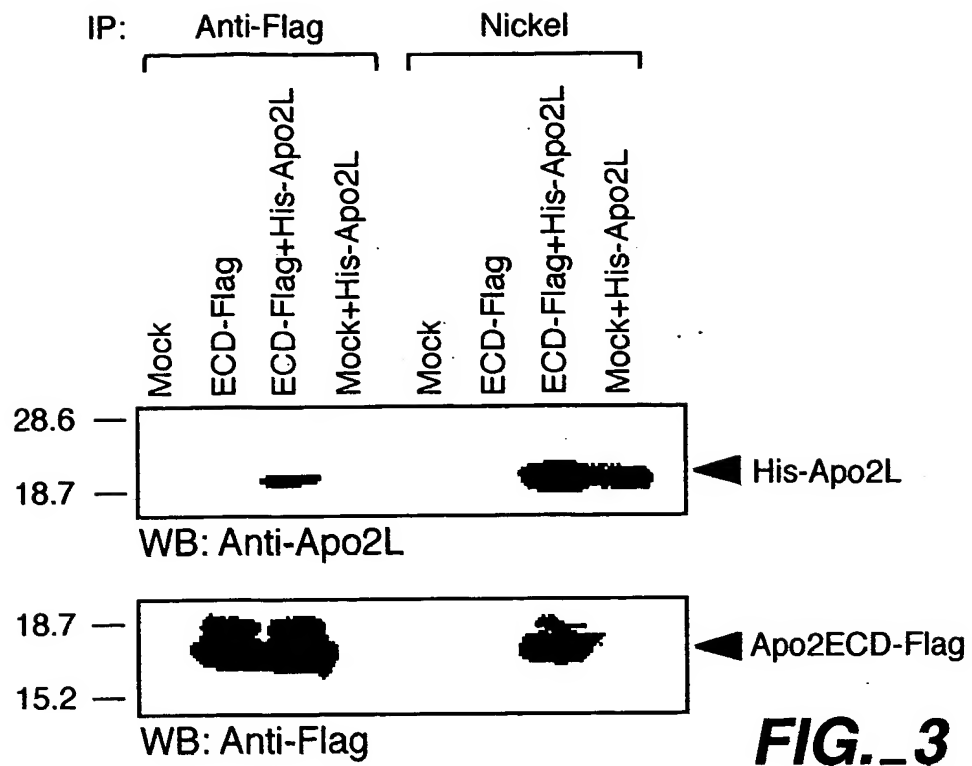


FIG._4A

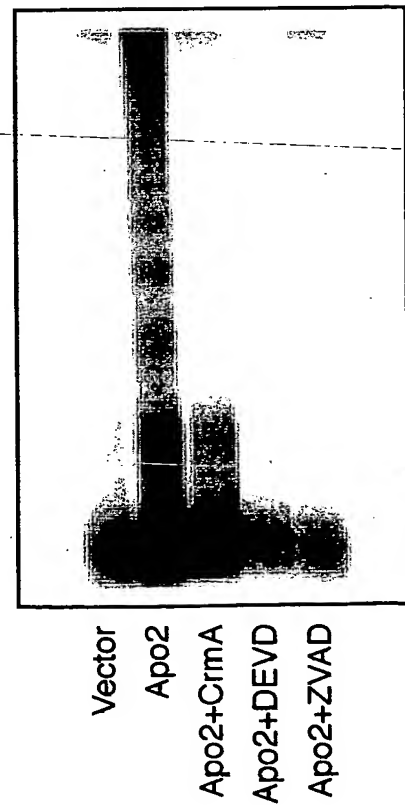


FIG._4B

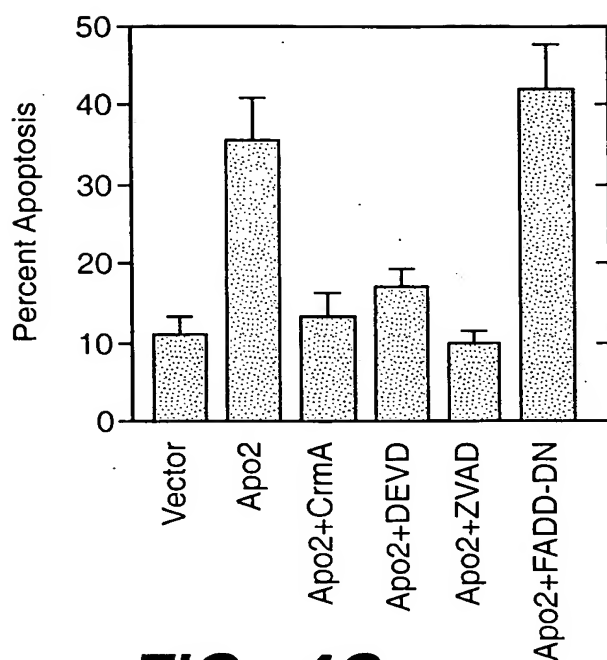


FIG._4C

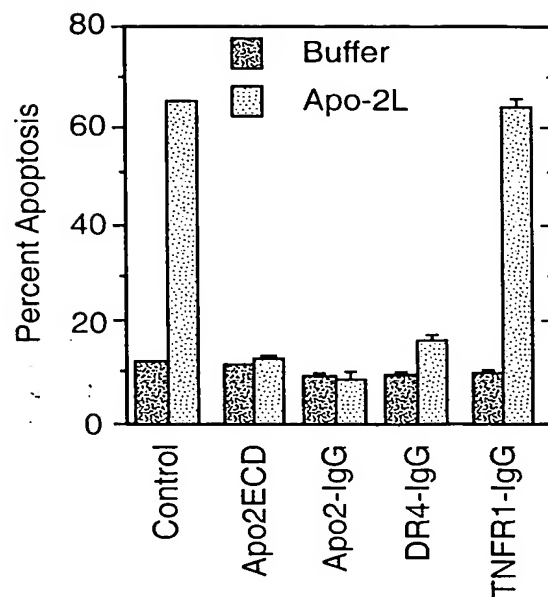


FIG._4D

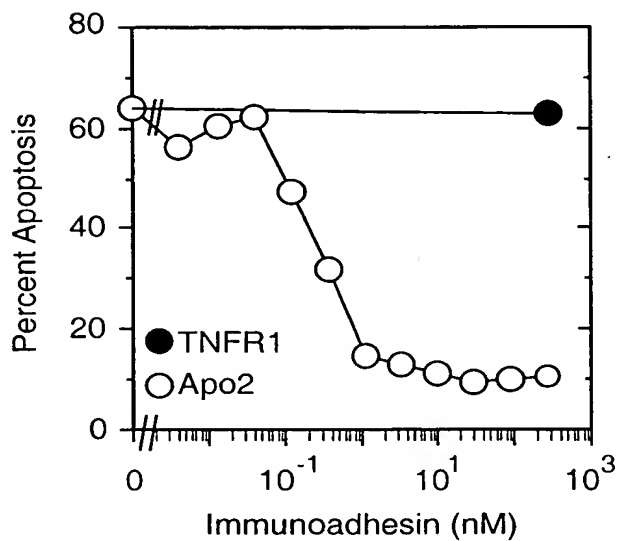


FIG._4E

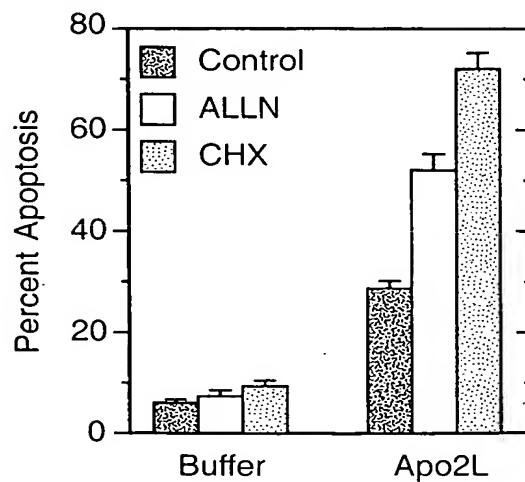
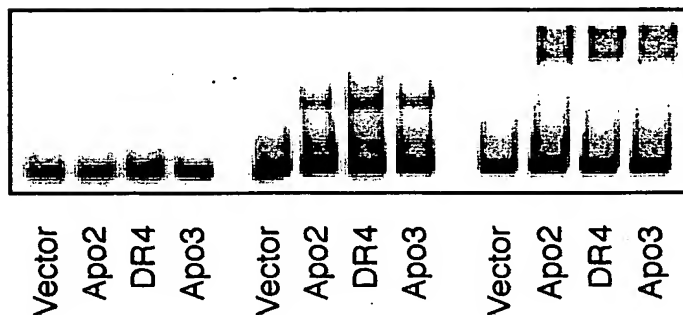


FIG._5C

Unlabelled probe	+	+	+	+	-	-	-	-	-	-	-	-
Labelled probe	+	+	+	+	+	+	+	+	+	+	+	+
Anti-p65	-	-	-	-	-	-	-	-	+	+	+	+

FIG._5A



Unlabelled probe	-	-	-	-	-	-
Labelled probe	+	+	+	+	+	+
Anti-p65	-	-	-	-	-	-

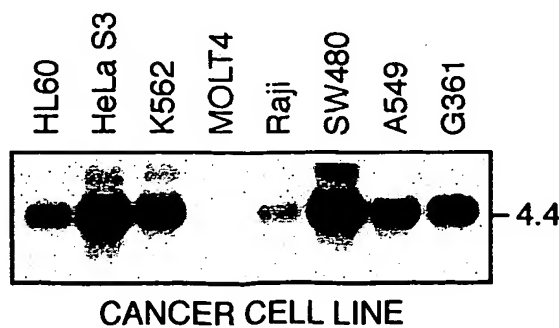
FIG._5B



FIG._6A



FIG._6B



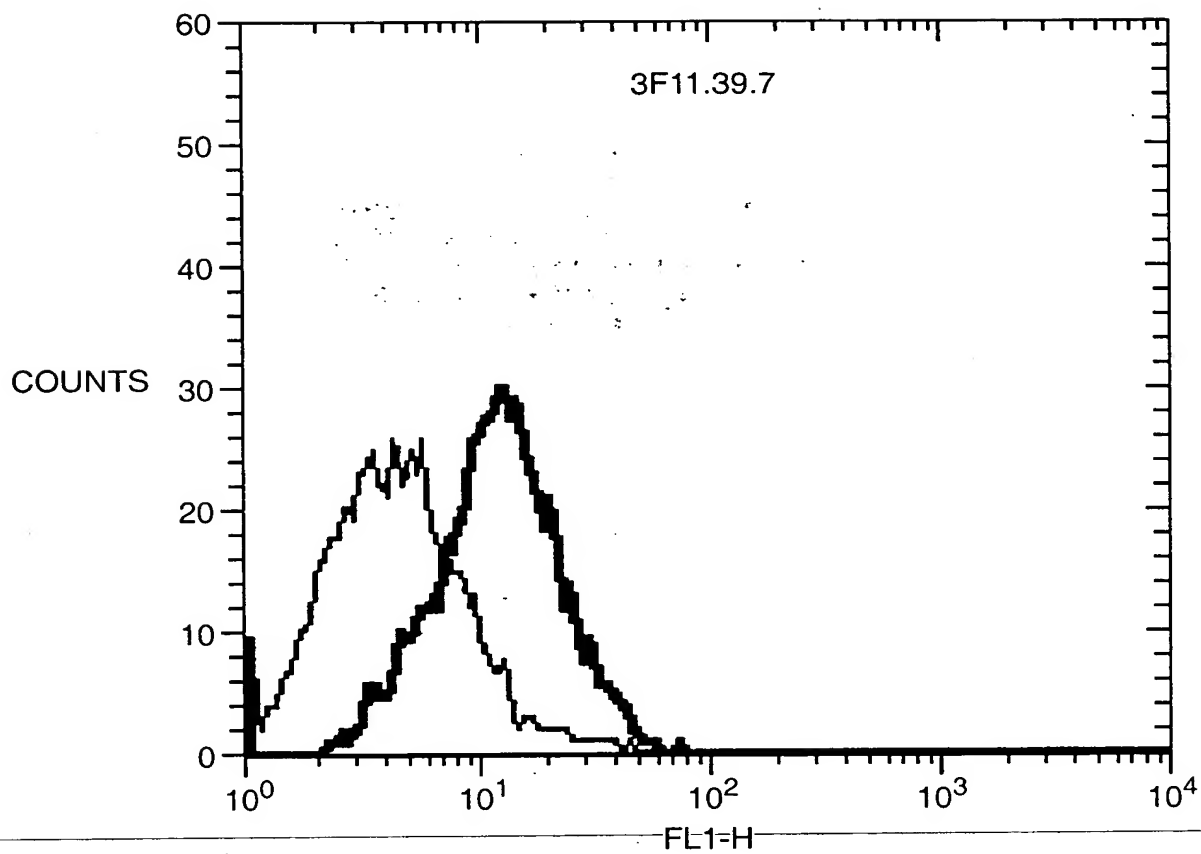
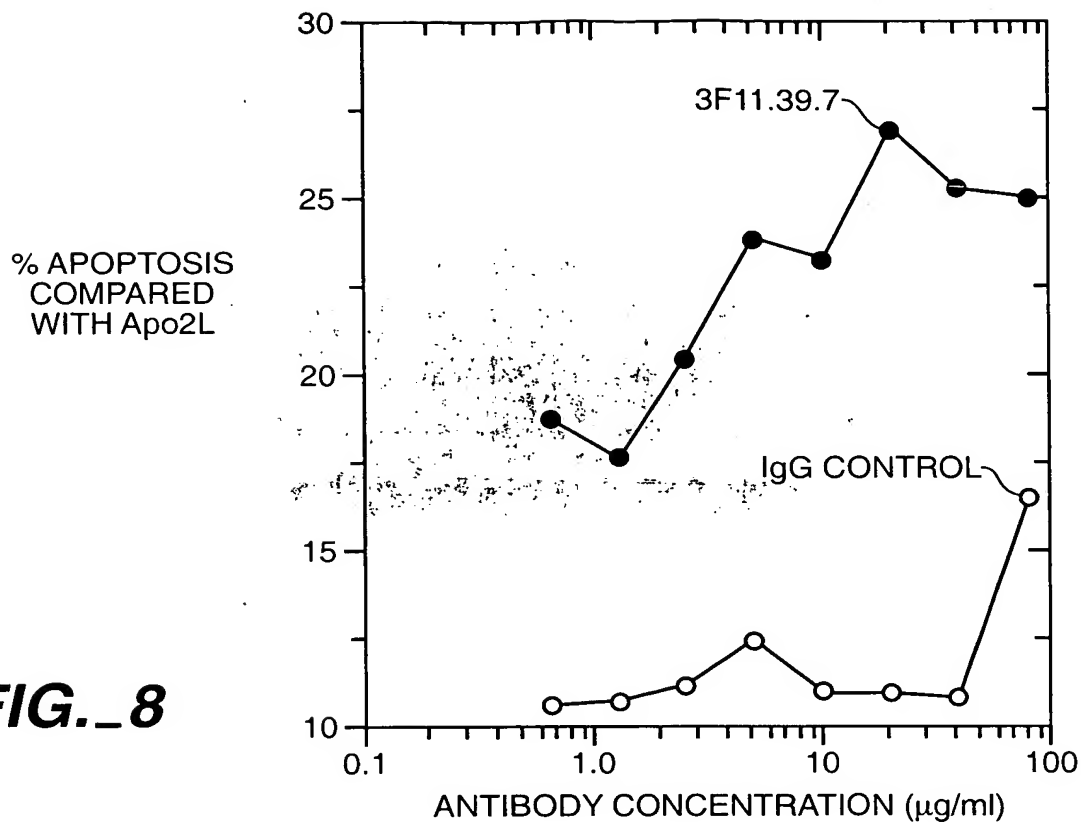


FIG. 7

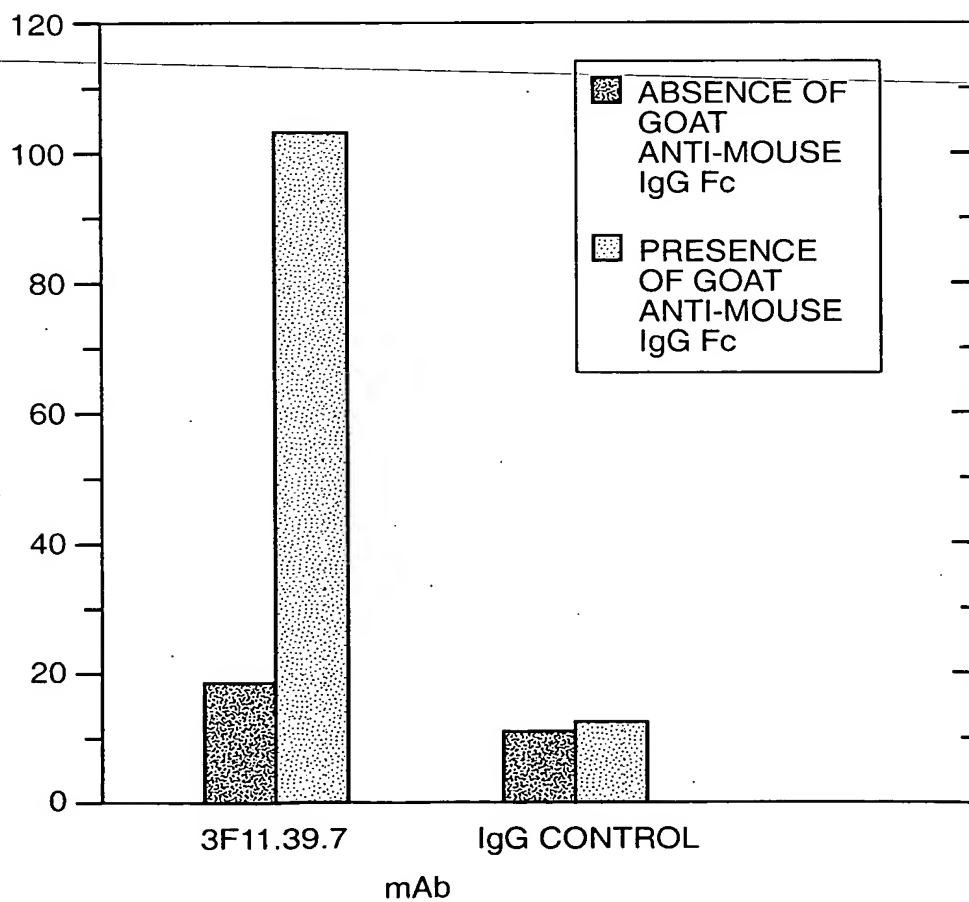
+

FIG._8



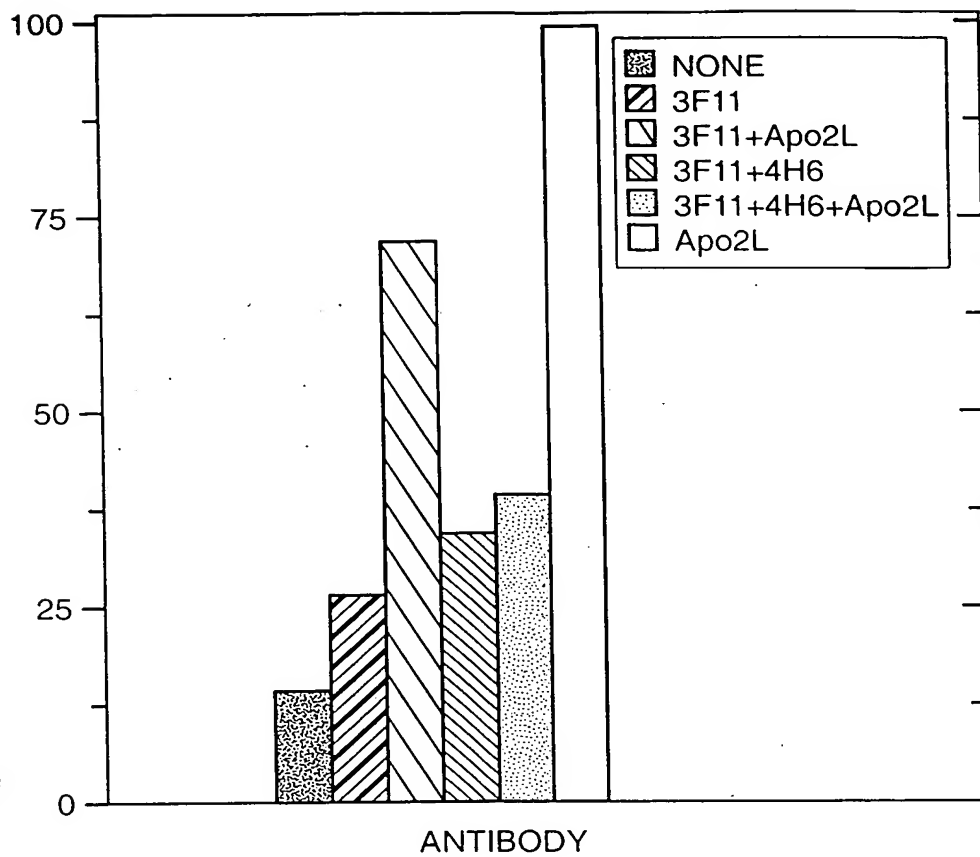
% APOPTOSIS
COMPARED
WITH Apo2L
(1 µg)

FIG._9



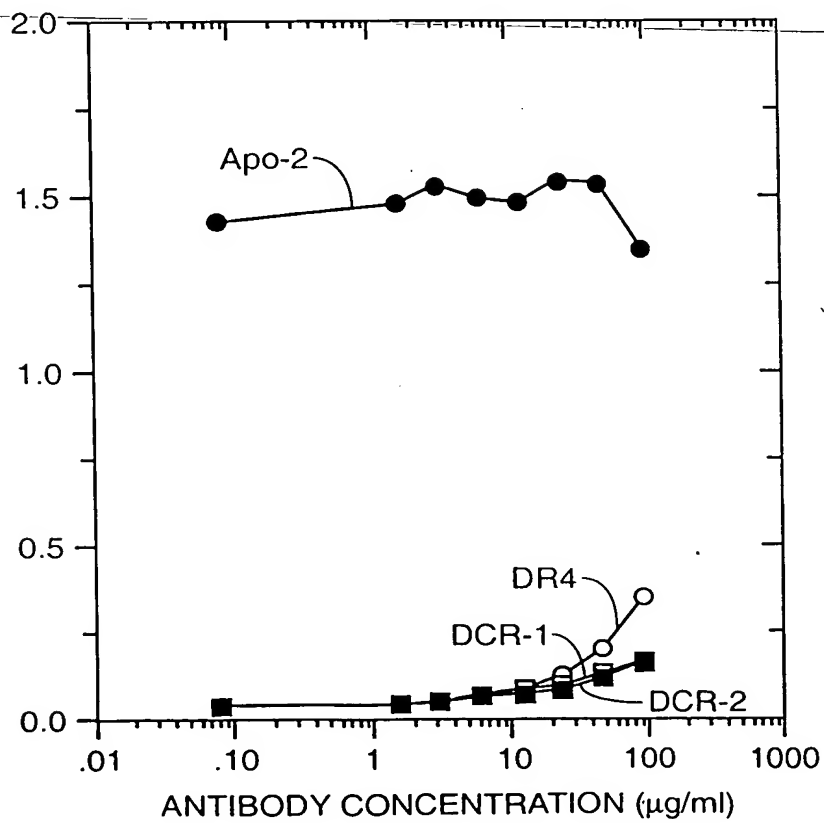
% APOPTOSIS
OF 9D CELLS

FIG._10



OD 450/620

FIG._11



cell suspension

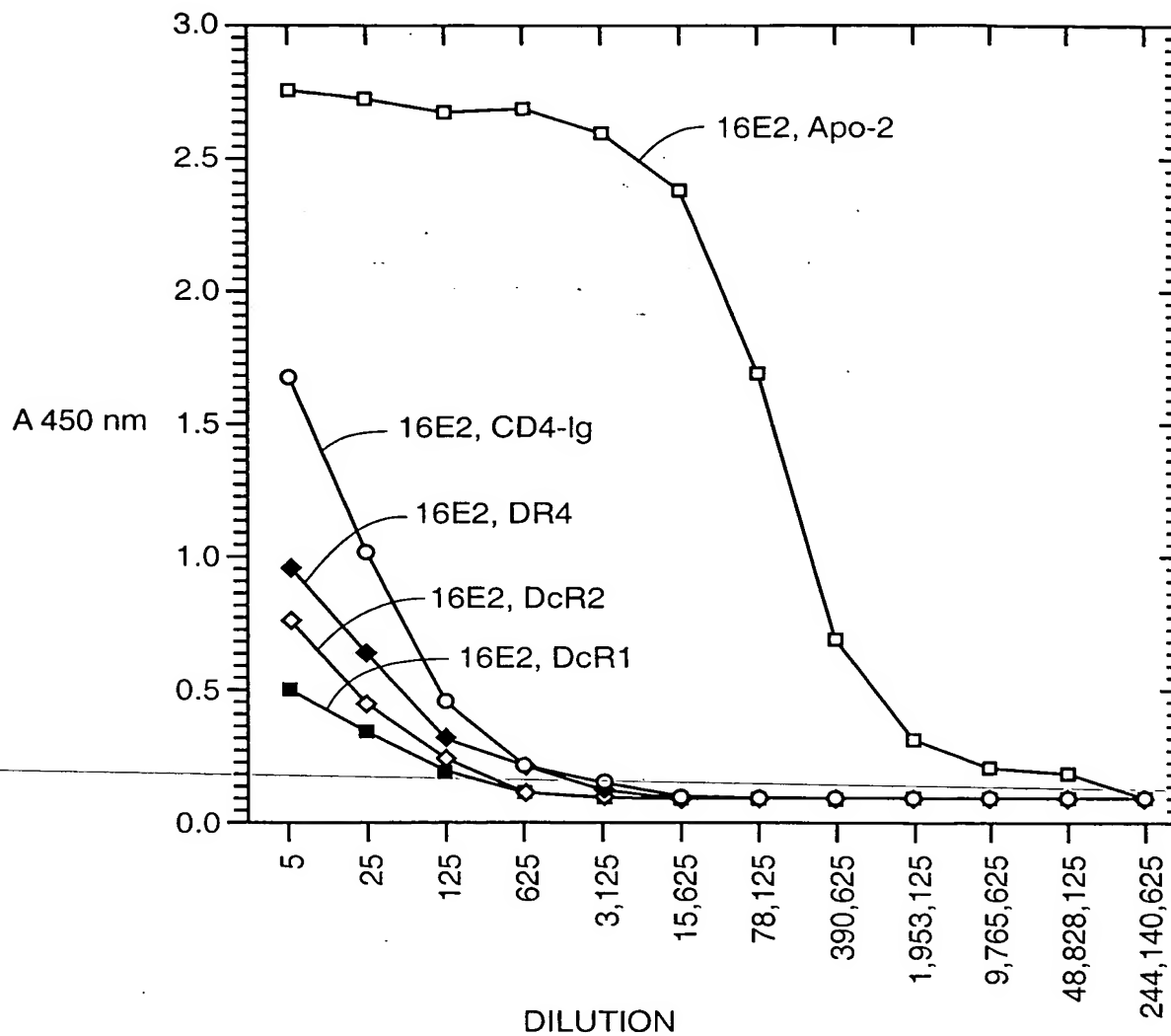


FIG. 12A

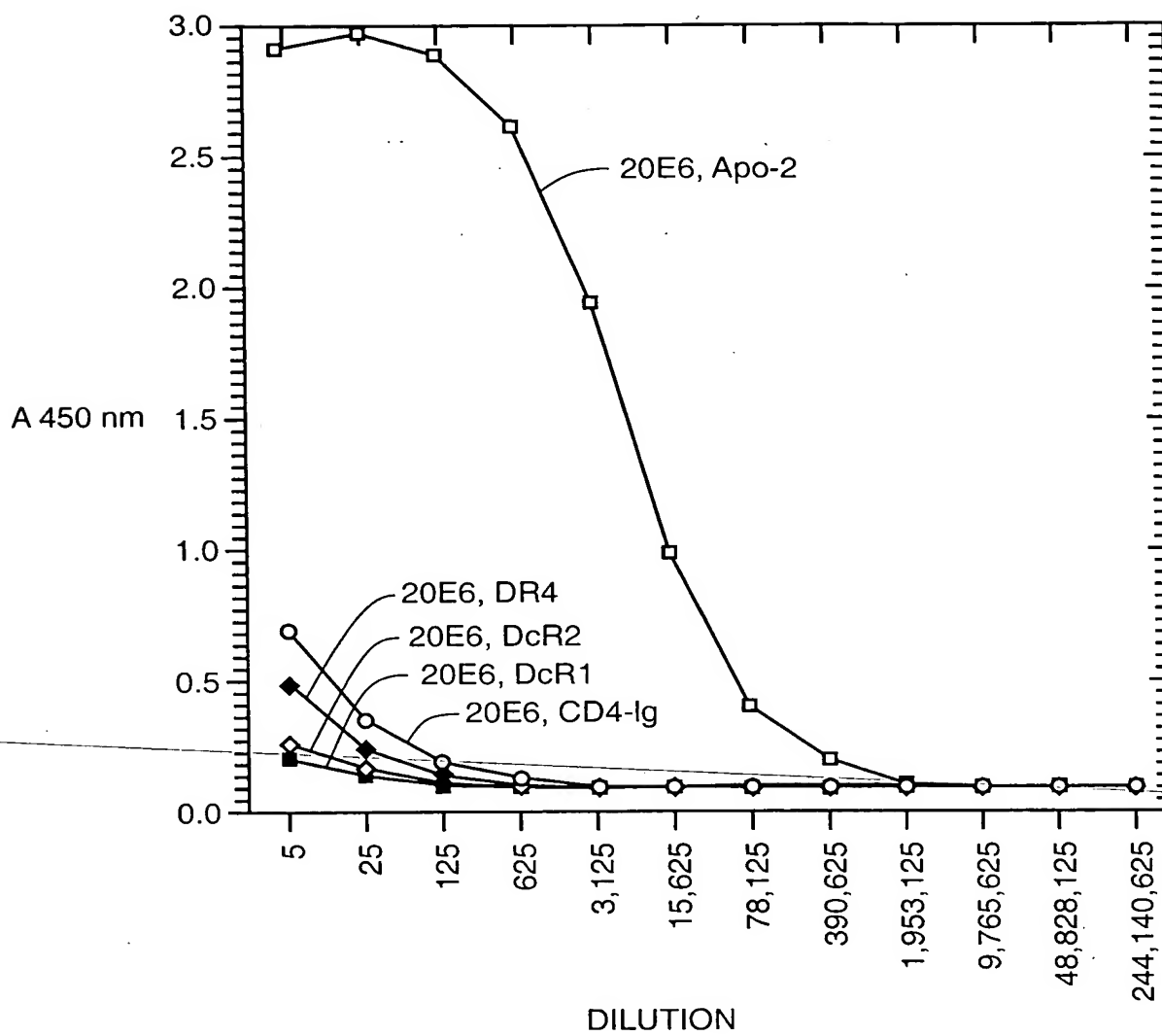


FIG. 12B

20241103 10:23:00

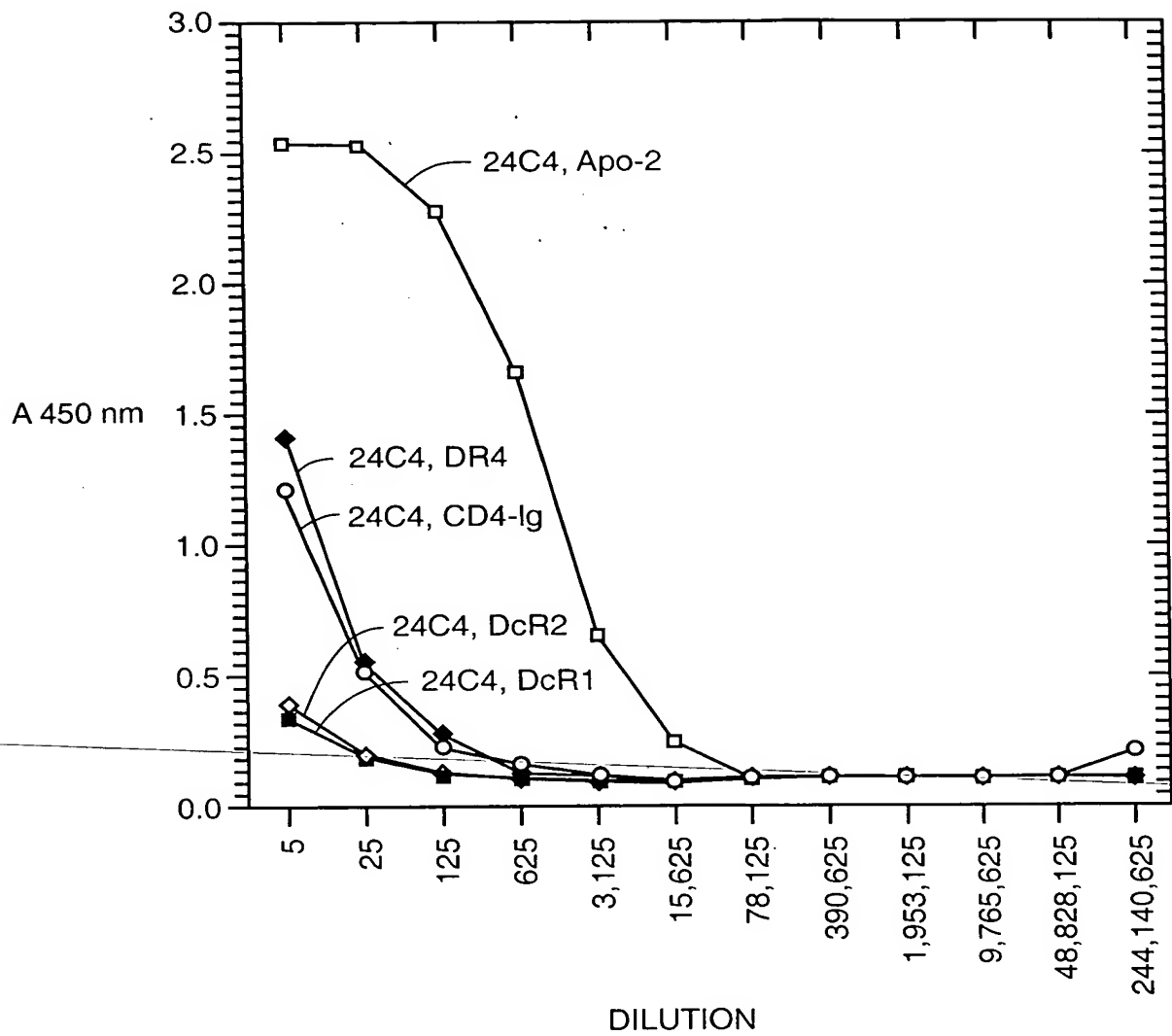


FIG. 12C

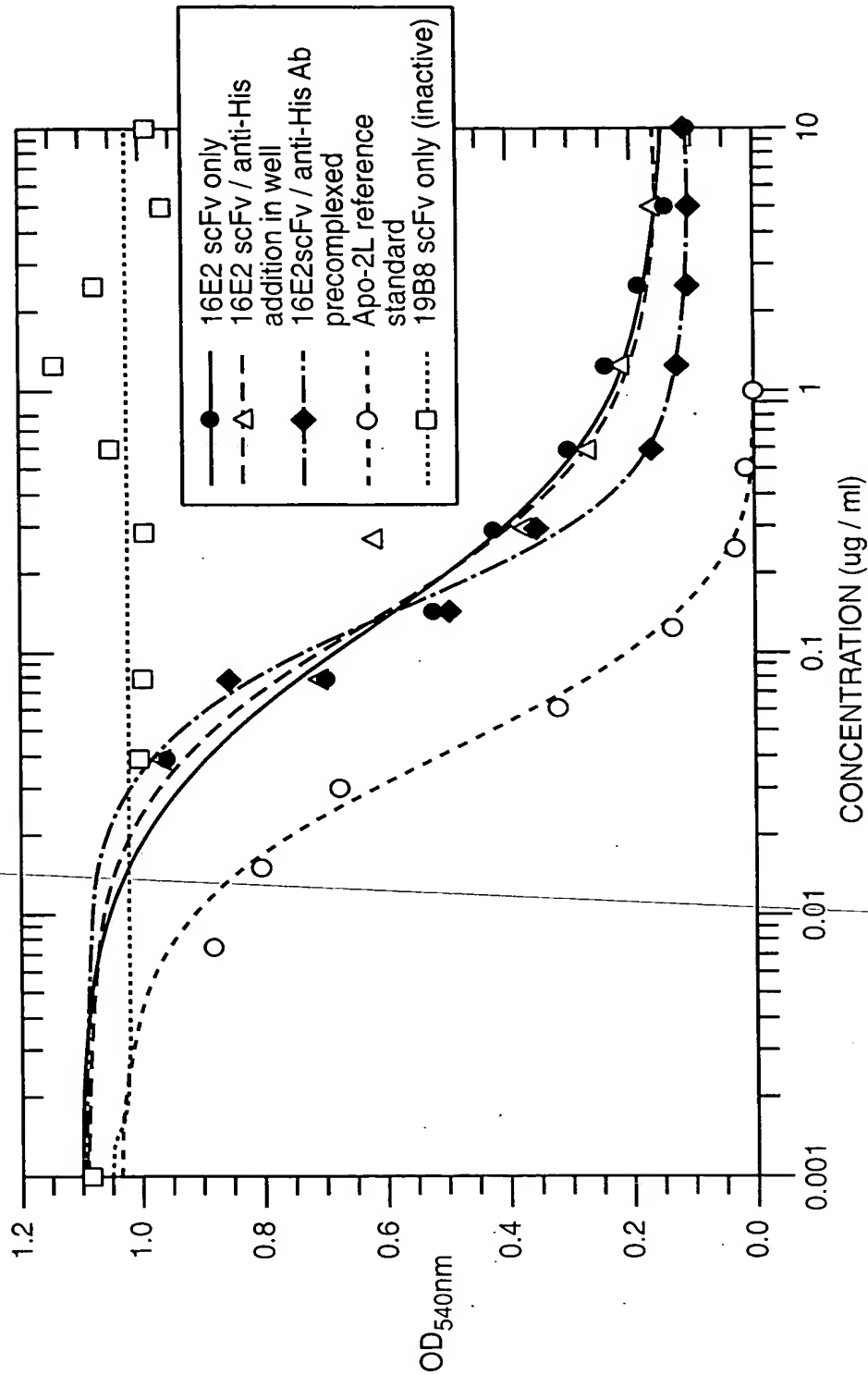


FIG.- 13A

Apo-2L REFERENCE STANDARD	
VALUE	ERROR
m1	1.0383
m2	1.4661
m3	0.040308
m4	-0.023006
Chisq	0.013011
R	0.99551

16E2 scFv ONLY	
VALUE	ERROR
m1	1.105
m2	1.1094
m3	0.12447
m4	0.13897
Chisq	0.011781
R	0.99448

FIG. 13B

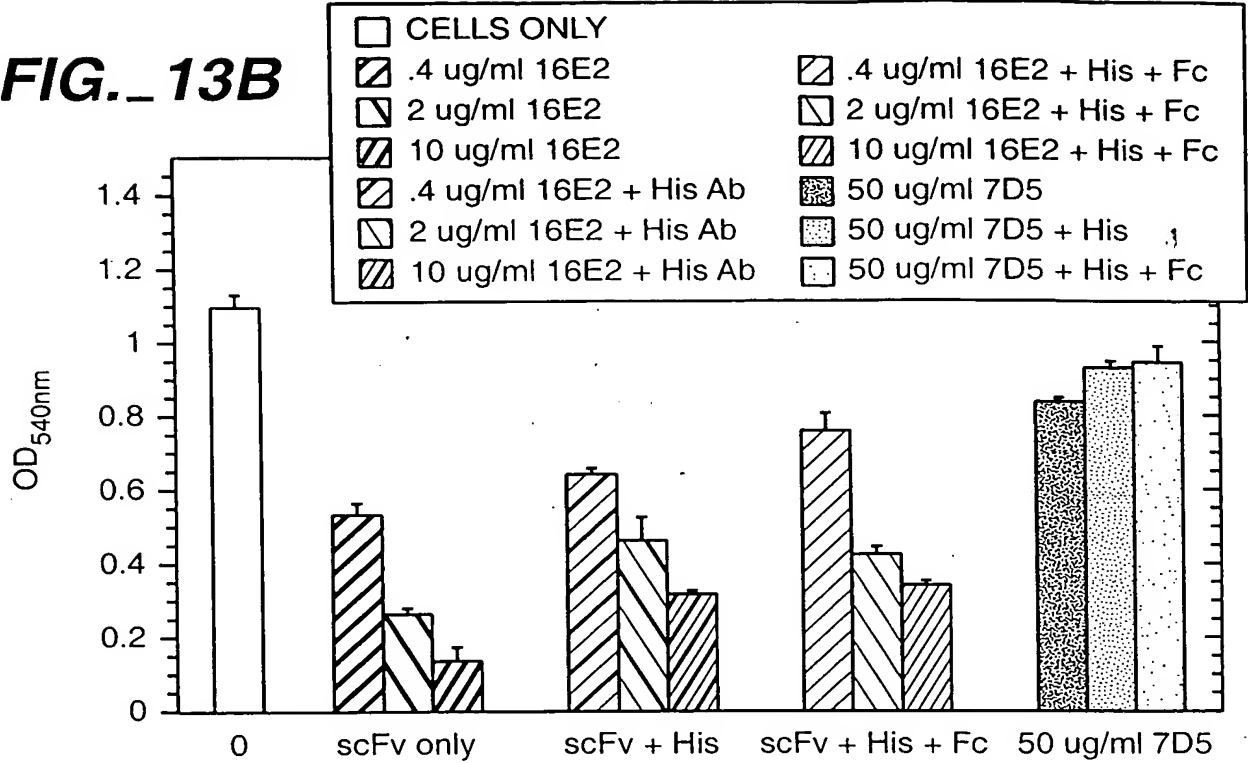
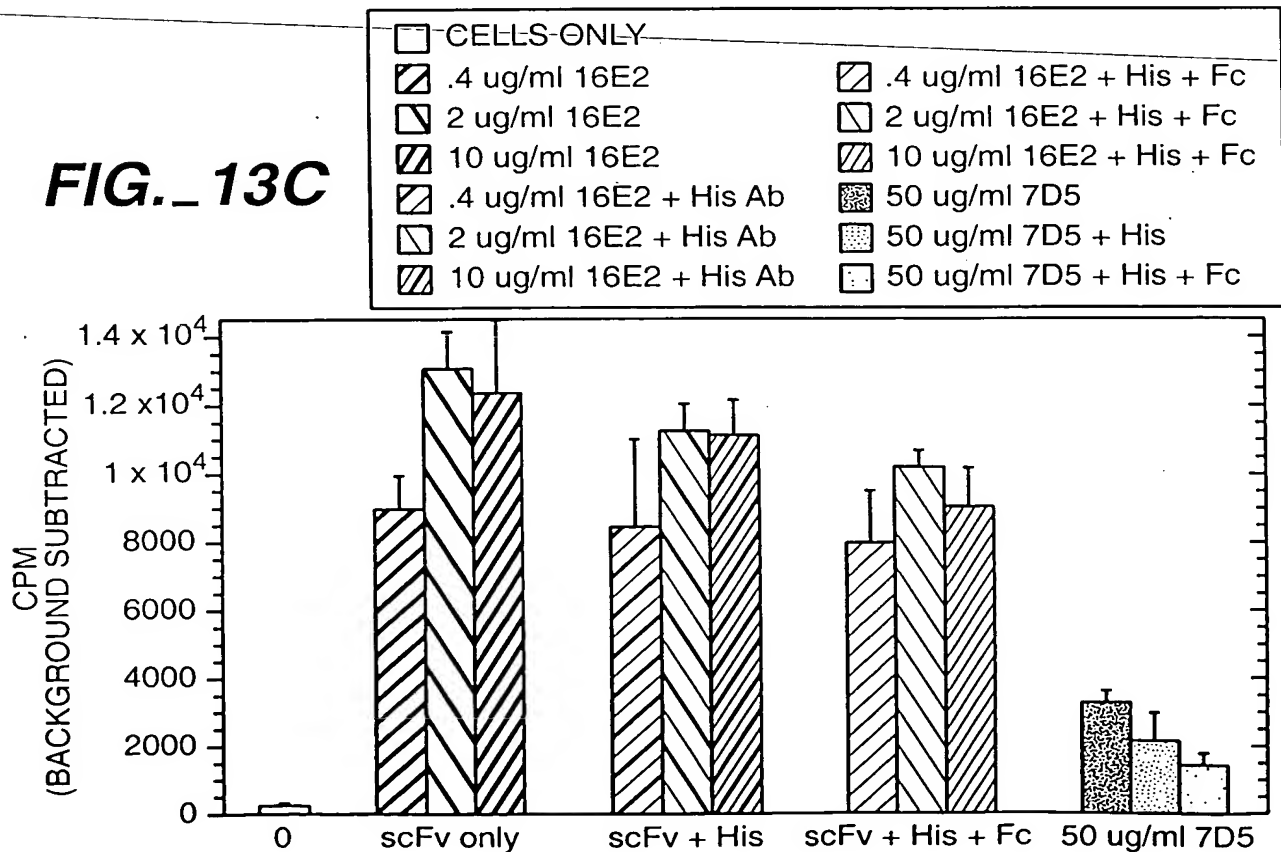


FIG. 13C



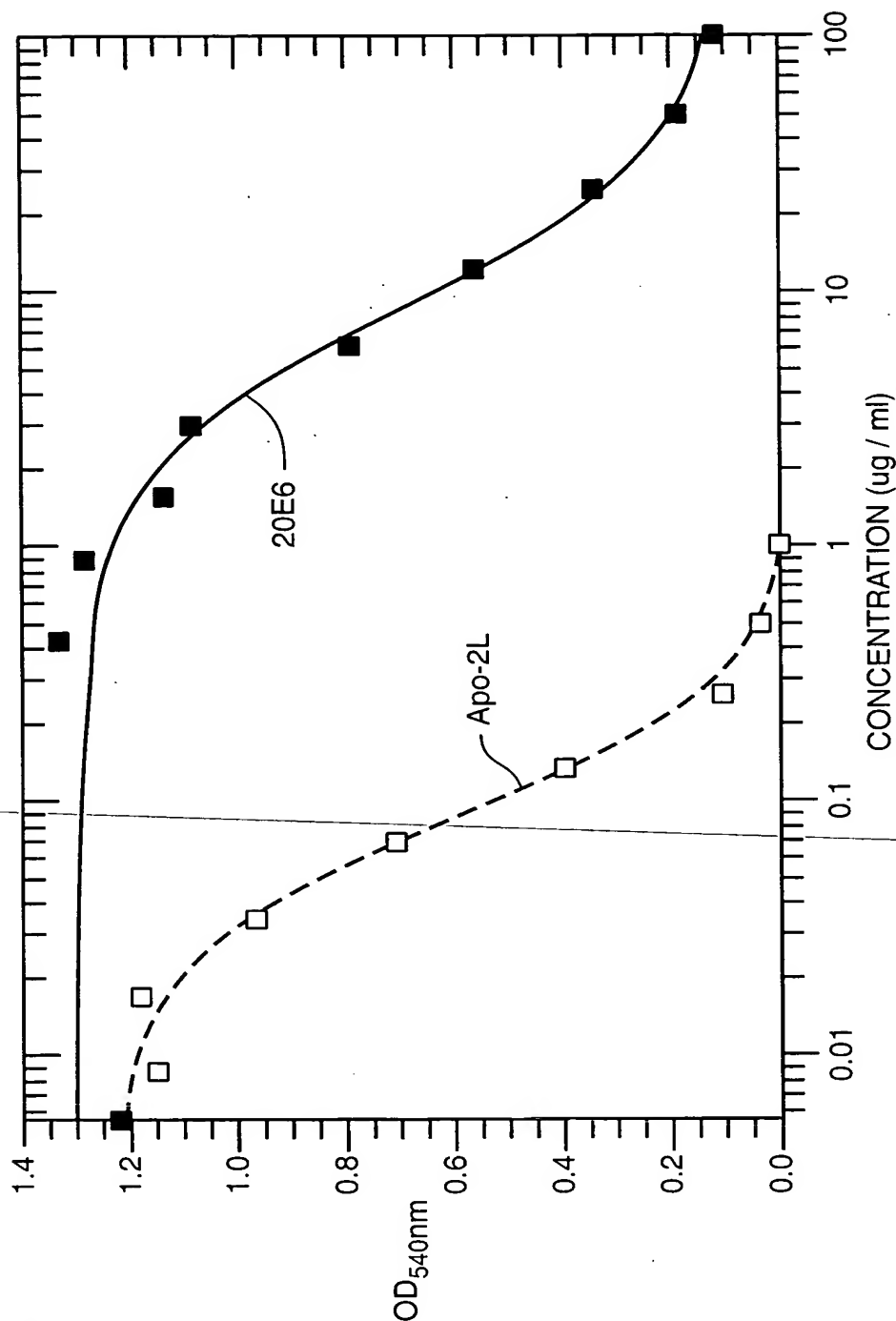


FIG. 14A

Apo-2L		
	VALUE	ERROR
m1	1.2216	0.028142
m2	1.6356	0.17759
m3	0.0780	0.00529
m4	-0.025859	0.033322
Chisq	0.0058166	NA
R	0.99864	NA

scFv 20E6		
	VALUE	ERROR
m1	1.2948	0.038022
m2	1.3318	0.22832
m3	8.6124	1.2249
m4	0.077139	0.068356
Chisq	0.017679	NA
R	0.99565	NA

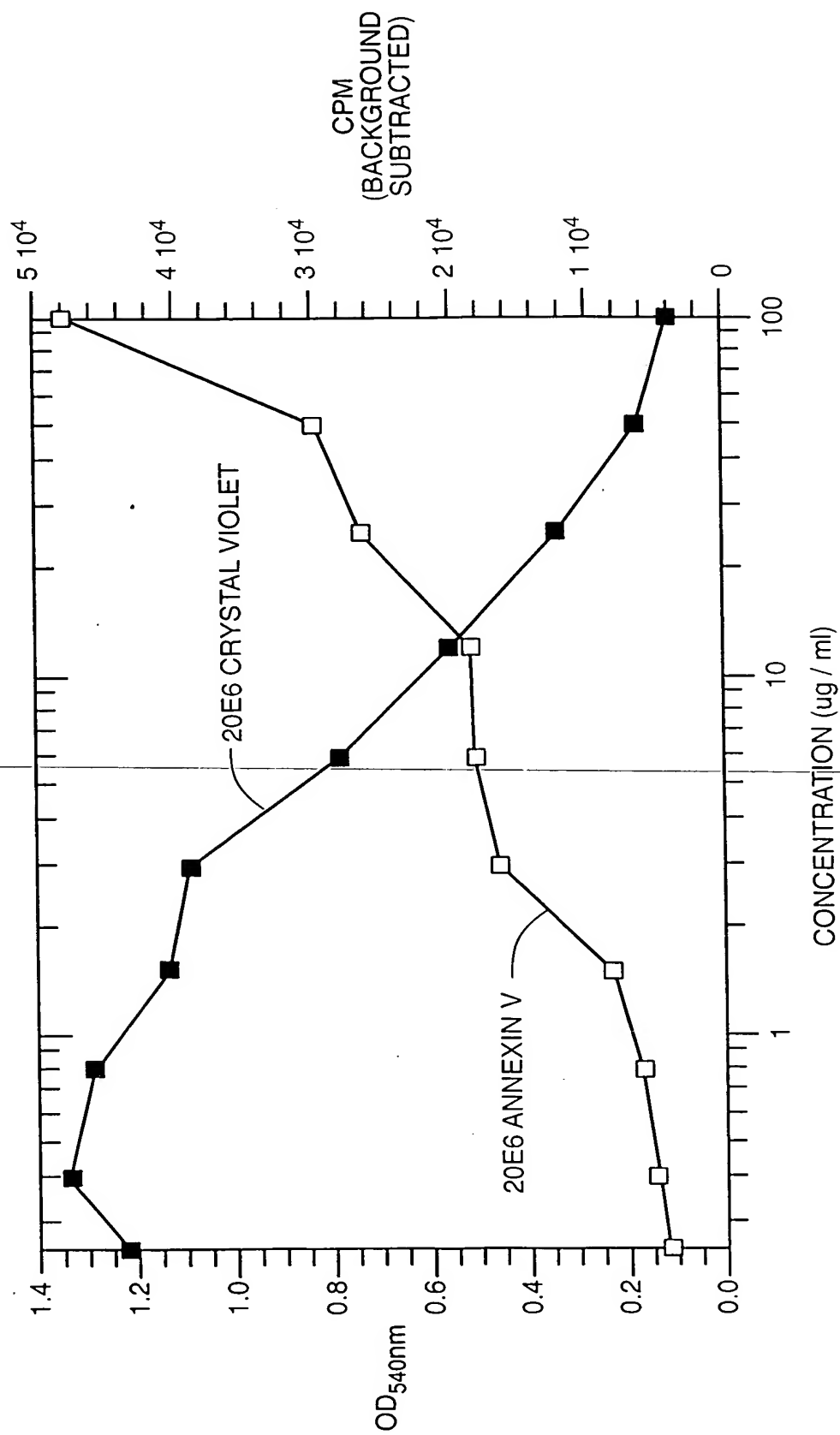


FIG. 14B

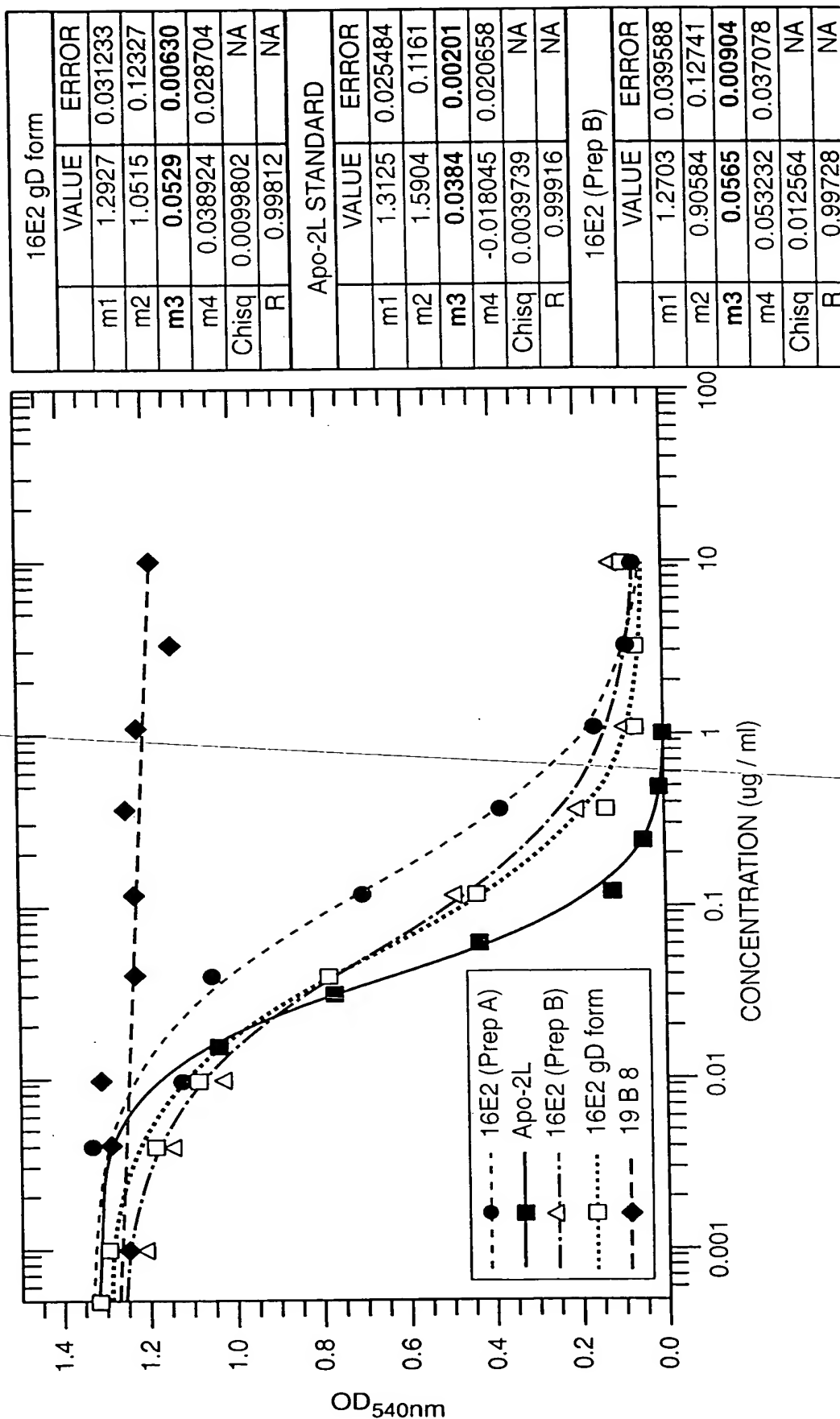


FIG. 14C

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTTTTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGAG GTGCAGCTGG TGCAGTCTGG GGGAGGTGTG 150
 GAACGGCCGG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTGATGAT TATGGCATGA GCTGGGTCCG CCAAGCTCCA GGAAGGGGGC 250
 TGGAGTGGGT CTCTGGTATT AATTGGAATG GTGGTAGCAC AGGATATGCA 300
 GACTCTGTGA AGGGCCGAGT CACCATCTCC AGAGACAACG CCAAGAAGTC 350
 CCTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCCGTATATT 400
 ACTGTGCGAA AATCCTGGGT GCCGGACGGG GCTGGTACTT CGATCTCTGG 450
 GGAAGGGGA CCACGGTCAC CGTCTCGAGT GGTGGAGGCG GTTCAGGCGG 500
 AGGTGGCAGC GCGGGTGGCG GATCGTCTGA GCTGACTCAG GACCCTGCTG 550
 TGTCTGTGGC CTTGGGACAG ACAGTCAGGA TCACATGCCA AGGAGACAGC 600
 CTCAGAAGCT ATTATGCAAG CTGGTACCAG CAGAAGCCAG GACAGGCCCC 650
 TGTACTTGTC ATCTATGGTA AAAACAACCG GCCCTCAGGG ATCCCAGACC 700
 GATTCTCTGG CTCCAGCTCA GGAAACACAG CTTCTTGAC CATCACTGGG 750
 GCTCAGGCGG AAGATGAGGC TGAATATTAC TGTAATCCC GGGACAGCAG 800
 TGGTAACCAT GTGGTATTCG GCGGAGGGAC CAAGCTGACC GTCCTAGGTG 850
 CGGCCGCACA TCATCATCAC CATCACGGGG CCGCAGAACA AAAACTCATC 900
 TCAGAAGAGG ATCTGAATGG GGCCGCATAG 930

FIG. 15A

ATGACCATGA TTACGCCAAG CTTTGGAGCC TTTTTTTTGG AGATTTTCAA 50
 CGTGAAAAAA TTATTATTCG CAATTCCTTT AGTTGTTTCCT TTCTATGCGG 100
 CCCAGCCGGC CATGGCCGGG GTGCAGCTGG TGGAGTCTGG GGGAGGCTTG 150
 GTCCAGCCTG GGGGGTCCCT GAGACTCTCC TGTGCAGCCT CTGGATTAC 200
 CTTTAGTAGC TATTGGATGA GCTGGGTCCG CCAGGCTCCA GGAAGGGGGC 250
 TGGAGTGGGT GGCCAACATA AAGCAAGATG GAAGTGAGAA ATACTATGTG 300
 GACTCTGTGA AGGGCCGATT CACCATCTCC AGAGACAACG CCAAGAAGTC 350
 ACTGTATCTG CAAATGAACA GCCTGAGAGC CGAGGACACG GCTGTGTATT 400
 ACTGTGCGAG AGATCTTTTA AAGGTCAAGG GCAGCTCGTC TGGGTGGTTC 450
 GACCCCTGGG GGAGAGGGAC CACGGTCACC GTCTCGAGTG GTGGAGGCGG 500
 TTCAGGCGGA GGTGGTAGCG GCGGTGGCGG ATCGTCTGAG CTGACTCAGG 550
 ACCCTGCTGT GTCTGTGGCC TTGGGACAGA CAGTCAGGAT CACATGCCAA 600
 GGAGACAGCC TCAGAAGCTA TTATGCAAGC TGGTACCAGC AGAAGCCAGG 650
 ACAGGCCCCCT GTACTTGTC TCTATGGTAA AAACAACCGG CCCTCAGGGA 700
 TCCCAGACCG ATTCTCTGGC TCCAGCTCAG GAAACACAGC TTCCTTGACC 750
 ATCACTGGGG CTCAGGCGGA AGATGAGGCT GACTATTACT GTAATCCCG 800
 GGACAGCAGT GGTAACCATG TGGTATTCGG CGGAGGGACC AAGCTGACCG 850
 TCCTAGGTGC GGCCGCACAT CATCATCACC ATCACGGGGC CGCAGAACAA 900
 AAATCATCT CAGAAGAGGA TCTGAATGGG GCCGCATAG 939

FIG. 15B

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